## COMMONWEALTH OF PENNSYLVANIA

## DEPARTMENT OF AGRICULTURE

## BUREAU OF FOODS

BULLETIN No. 337

PRELIMINARY REPORT

OF THE

## Director of the Bureau of Foods

FOR THE YEAR 1919



FRED. RASMUSSEN,
Secretary of Agriculture.

JAMES FOUST,

Director of the Bureau of Foods.

Published by Direction of the Secretary.

HARRISBURG, PENNA. 1920.



#### LETTER OF TRANSMITTAL

Harrisburg, Penna., December 31, 1919.

Hon. Fred. Rasmussen, Secretary of Agriculture.

Dear Sir: I have the honor to submit the following report of the operations of the Bureau of Foods for the year 1919.

Very respectfully,

JAMES FOUST, Director of the Bureau of Foods.



#### PREFACE

Owing to the fact that the Report of the Department of Agriculture for the year 1919, containing the Reports of the several Bureaus of the Department, will not be ready for distribution for some time, the Director of the Bureau has wisely concluded to furnish the Head of the Department with the following preliminary report; and in order that the information it contains may have as speedy and wide circulation as possible, its publication as a bulletin of the Department is authorized.

FRED. RASMUSSEN, Secretary of Agriculture.



#### DUTIES OF THE BUREAU OF FOODS

The Bureau of Foods, created as the sixth bureau of the Department of Agriculture under the Act of May 8, 1919, is charged with essentially the same duties that under the preceding organization of the Department pertained to the office of the Dairy and Food Commissioner, together with such additional duties as were created by certain laws enacted during the legislative session of 1919. These duties as a whole may be briefly described as consisting of the enforcement of all laws of this State relating to the manufacture, sale, transportation and storage of foods and non-alcoholic drinks for man. In other words, it is the agency created to prevent the adulteration and misbranding of foods, and to secure, as far as the laws may give power to that end, the sanitary production, manufacture, storage and handling of human foods.

The laws enacted prior to 1919 for these objects are so well known as not to require specific mention in this connection.

#### New Legislation

The duties of the Bureau were somewhat modified by the legislation of 1919. Certain of the earlier laws were then somewhat changed. The most striking of these changes was probably that extending the period of cold storage permitted for the various classes of foods largely preserved by that method. Another important amendment modified the Rotten Egg Act of March 11, 1909, as amended on April 11, 1913, by requiring that all who undertake the business of egg opening shall first procure from the Bureau of Foods a license to engage in that undertaking, specifying the conditions under which such business may be conducted, and placing the supervision thereof in the care of the Director of the Bureau of Foods, the object of this new legislation being more perfectly to secure the public from the use of decayed eggs for food purposes and to prevent the contamination of sound eggs in the course of the separation of those unfit for food. Another act, dated June 10, 1919, prohibits the sale as fresh eggs of any eggs that are not fresh, provides a penalty for the violation of the act, and charges the Director of the Bureau of Foods with the enforcement of this law.

#### Food Trade Conditions During 1919

While the duties committed to this branch of the State service change but slowly from time to time, the conditions governing the food trade are variable. The result of such variation is to require a difference in the emphasis which must from time to time be placed upon different phases of the Bureau's activities. The past year together with those immediately preceding it have brought into existence in the food trade conditions of very extraordinary nature. Labor has shifted from the occupations of peace to those of war. Food conservation became not only desirable, but a patriotic duty. Certain staple foods were no longer allowed to be produced and sold in their nomal condition, but were required to be modified in one way or other. Happily, however, precautions were taken that prevented the confusion and destruction of the meanings commonly given the common names for the normal foods. This period of enforced substitution came to an end. It was, however, uncertain in how far the practices required as extraordinary measures during the war might be negligently or dishonestly carried forward into the following peace time.

With the war came high wages and high prices, although, happily, no serious falling off in the volume of food raw materials. The rise in wages brought to the wage-earner a new feeling of riches; the following rapid rise in prices, an angry disappointment, a strong suspicion of profiteering, and insistent demand for government regulation, prevention and punishment. While the general body of food raw materials produced in America was happily not decreased, the distribution of these materials was necessarily affected and in some cases, such as that of sugar, the conditions of production and distribution developed serious scarcities of this commodity with resulting temptation to employ substitutes. Moreover, the national prohibition legislation has cut off from further manufacture and sale certain classes of beverages heretofore used in large quantities. Large numbers of new beverages have been developed to replace them, and, furthermore, other food products in which alcohol has been a nomal ingredient are now required to be made instead with the use of other materials. In brief, during the present time there are many unusual conditions affecting the food trade that might be expected to favor an increase in adulteration and misbranding. The value of the food laws, the general acceptance of the standards of business ethics which they represent, and the efficiency with which the food laws are enforced are therefore, at the present time, submitted to an unusually searching test.

## General Survey of 1919 Operations

Before referring to special developments that occurred during the past year, permit me to report those facts that serve best to indicate the general volume of the year's work. These facts are exhibited in summaries of the numbers of food samples purchased and analyzed, the number of prosecutions for violations of the food laws that were terminated during the year, and the classified receipts and expenditures for that period.

The total number of food samples purchased and analyzed during the year was 6,851.

The number of prosecutions for violations of the food laws that were terminated during the year was 1,007.

The receipts during 1919 of the Bureau of Foods from fines and license fees were as follows:

Cold Storage Pines \$355	$\Omega$
Cold Storage Fines,	
Cold Storage Lieenses,	
Egg Donning Establishment Licenses	
Egg Fines, Act of 1909,	$00^{-}$
Tigg Tilles, field of feet	
r resulting r mes,	
Food Fines, 2,965	
Fruit Syrun Fines 60	
Iee Cream Fines,	00
Meat Fines, 200	00
meat Fines,	
Milk Pilles, Act of 1901,	
Non-Alcoholic Drink Fines,	
Oleomargarine Licenses,	37
Renovated Butter Licenses,	00
Renovated Dutter interests,	
Sansage Fines	~ ~
Vinegar Fines	UU
Total,\$541,487	37

### The classified expenditures for the year were:

Salary of the Director of the Bureau of Foods,	\$4.583.53
Salary of the Director of the Bureau of Pools,	437 50
Salary of Clerk,	375 00
Messenger's Salary	
Chemists' Services and Expenses,	15,998 27
Clerical and Stenographers,	6,296 29
Attorneys, Assistants and Special	6,431 36
Special Agents' Salaries,	27,496 83
Traveling and Agents' Expenses,	17.275 38
Cold Storage Inspection,	9,067 76
-	
Total Expenditure for the Year,	\$87,961 92

#### Comparative Statement

Comparison affords the best index of service. The following statement presents like data for the years 1907 to 1919, inclusive, for which the undersigned has borne the responsibility of the direction of this branch of the State service:

Year.	Samples Analyzed.	Cases Ter- minated.	Receipts.	Expend- itures.
1907, 1908, 1909, 1910, 1911, 1912, 1913, 1914, 1915, 1916, 1917, 1918, 1919,	7,400 8,300 6,200 5,594 8,200 7,204 6,846 4,827 8,939 5,807 8,701 6,643 6,851	664 300 797 667 1,029 1,049 1,025 1,010 1,165 1,093 1,169 1,133 1,007	\$55,732 63 . 54,580 62 . 86,594 15 . 110,802 95 . 120,993 48 . 136,125 49 . 173,789 76 . 225,910 78 . 279,055 40 . 303,367 03 . 373,156 48 . 488,855 12 . 541,487 37	\$78,455 88 69,968 20 83,700 00 79,661 65 83,683 15 81,858 55 75,587 12 73,271 41 85,901 36 77,931 97 81,320 31 81,586 31 87,961 92

This statement shows that the volume of work performed is substantially equal to that performed in earlier years, and that the cost of this service, which is defrayed from specific appropriations made by the Legislature, therefore has, despite the general increase in cost of materials, transportation, wages and salaries in the business world, not been materially greater than the cost of like State service during earlier years. This means, of course, that not only care in expenditure, but also loyalty and increased contribution made by the Bureau's employes to the public good.

A striking feature in the foregoing statement is the rapid increase of receipts by the Bureau. It should be stated further that these receipts consist essentially of two kinds, collections from fines imposed for violations of the laws and fees. The various licenses brought in during 1919: Olcomargarine licenses, \$515,967.37; renovated butter licenses, \$600.00; cold storage licenses, \$3,600.00; licenses for egg opening establishments, \$1,300.00; making a total from licenses of \$521,467.37, while the receipts from fines were \$20,020.00.

All moneys received from these sources are immediately paid over to the State Treasurer and there merged with the general State funds.

In 1908 the receipts were but \$54,580.62; in 1919 they were nearly ten times as great.

The increase has been chiefly due to the increase in the number of licenses of various kinds granted under the several laws providing

therefor. The policy of the Bureau has not been to aim at the correction of bad food conditions mainly by the method of prosecution. Educational methods, personal notification and cooperation with trade organizations have been the means mainly employed to prevent the abuses proscribed by law. Prosecution has been regarded as a necessary, but last resort. Punishment, in other words, has not been the main object—merely one of the means to the desirable end of preventing food abuses.

The comparative statement makes very evident the fact that the cost of the service given by this agency has been, during 1919, less than one-sixth of the Bureau's receipts, a condition in very striking contrast with that of 1907, when the cost of the service was about forty per cent. greater than the receipts. For the entire period represented by this data the aggregate receipts have been nearly three times the aggregate expenditures.

### SPECIAL PHASES OF THE YEAR'S WORK

#### Cold Storage

Because the supervision of the sanitary conditions and equipment of cold storage warehouses of the State that are used for food storage and the collection of statistics showing the amount of the several foods in storage at different fixed periods, is a duty somewhat different from the other duties with which the Bureau is charged, the facts relating to this division of the work will receive first notice, so far as they require mention.

One rather striking fact which has never been mentioned in any previous report deserves note. The law requires that before a license shall be issued for the operation of a cold storage warehouse, the fitness of the equipment shall be officially determined. In no instance has the refrigerating capacity of a warehouse been found insufficient. The liability of the warehouseman for the preservation of foods of large value is too great to permit him to risk the undertaking with an insufficient cooling capacity.

There has been a very distinct improvement in the sanitary conditions maintained in the cold storage warehouses of the State since the law first went into force. Even at that time, very bad sanitary conditions were found in relatively few cases. Most of these establishments were even then kept in a very praiseworthy manner. The improvement has been chiefly in the establishments that were at first not well managed.

As required by law, the warehouse managers report to the Director of the Bureau at fixed quarterly intervals the quantities of the several foods specified in the Cold Storage Warehouse Act that are at that time in storage. A classified summary of these reports for the last days of the respective quarters of 1919 is:

Quantities of Foods in Pennsylvania Cold Storage Warehouses.

Foods.	Units of Quantity.	1919, March 31.	1919, June 30.	1919, September 30.	1919, December 31.
Beef, Veal, Veal sweetbreads, Mutton, Pork, Game, Fish, Domestic poultry,	Lbs. Doz. Lbs. Lbs. Lbs. Lbs.	3,222,383 227,691 67 271,671 2,675,499 405 1,898,669 3,792,858	1,987,906 164,431 182,236 2,866,132 365 1,163,125 2,394,568	1,788,670 $290,581$ $15$ $187,685$ $1,422,733$ $159$ $2,203,198$ $1,150,921$	1,743,241 403,176 40 302,102 1,616,967 53,457 2,388,720 3,113,137
Eggs: In shell,Broken,	Doz. Lbs.	776,642 292,962	17,693,840 580,646	15,536,287 898,187	4,309,420 912,500
Butter,	Lbs.	378,656	6,539,450	7,390,839	2,902,142

These figures represent simply the quantities in storage on the four days mentioned. They give no summary of the total quantities of foods that are, through the period of the year in the state of Pennsylvania, put into cold storage and there held. The warehouse reports that are specified in the Cold Storage Act are not such as to afford any very exact notion of the total quantities of foods thus stored in the course of any year. Each food has its customary or natural period of production. In some cases, the period of production covers a number of months; in others, it is brief. ferences result in differences in the time and quantities of the respective foods that are placed in storage for preservation. mutton have relatively long periods during which slaughter is carried The time during which hogs are brought to market and slaughtered, as a matter of custom is much shorter. Butter and cheese tend to be manufactured and stored more abundantly when milk is most abundant and cheapest—that is, in summer months. The fisheries from which Pennsylvania cold storage stocks are derived are summer fisheries, so that the close of the fishing season normally witnesses the greatest volume of fish storage. Eggs, while produced through all the open months of the year, are most abundant and therefore cheapest and also of the better keeping quality in the early spring months, and go in the greatest volume into storage at that time.

It is not to be expected, however, that the volumes of the several foods in storage within a particular state necessarily represent the average conditions of the whole country at any particular time; for various artificial causes alter the distribution of these products through the various cold storage regions of this country.

It follows from the foregoing, that where there is in each year a natural rise and fall in the quantity of each food customarily preserved in cold storage, this rise and fall are due simply to the time relations of production. Disturbances in the nomal volume of cold stored foods can be detected only after making allowance for the nomal changes just described.

Possibly the best approach we can get to the average volume of foods in cold storage, as far as the reports made to the Bureau can show it, is to be obtained by taking for each the average of the quantities shown for the final days of the several quarters of the year. Such averages are here presented for the years 1915 and 1916 when the European nations, having gone to war, were purchasing large food supplies in America; also for the years 1917 and 1918, when America herself had become involved in the war, and for the year 1919, the first post-war year.

Averages of Quarterly Reports of Foods Held in Cold Storage.

	1915.	1916.	1917.	1918.	1919.
Meats, other than game, lbs.,  Fish, lbs.,  Poultry, lbs.,  Eggs in shell, doz.,  Eggs, broken, lbs.,  Butter, lbs.,	2,794,034	2,982,312	4,048,245	2,415,405	1,205,819
	2,642,245	2,552,336	2,950,257	2,716,147	1,913,428
	2,286,277	2,481,841	3,768,484	2,015,429	2,612,871
	9,748,831	7,555,143	8,837,778	7,043,986	9,579,047
	308,968	351,450	549,957	873,369	671,074
	7,017,156	5,059,392	5,616,228	3,715,392	4,302,772

This comparative statement shows a great increase in the quantities of meat stored during 1917 and a very great decrease in the amount stored during 1919. The figures for fish show comparatively small differences through the first four years of the period covered, but a shortage during 1919. Poultry, like meats, shows a very large supply in storage during 1917, but a greater supply during 1919 Shell eggs show comparative shortage during 1916, 1917 and 1918 and about normal amounts in 1915 and 1919. The quantity of butter in storage, if we take the 1915 volume as the normal, shows a very distinct drop during the last two years, and a volume for 1918 about one-half of that for 1915, but a slight recovery in 1919. Certainly the figures for the past year, so far as they suffice to represent the average condition through the entire year, indicate no excess stocks of these foods in storage in the State. The volumes for meats, fish and egg volumes are about normal. and butter are very distinctly below normal.

A detailed study of the quarterly reports for the past six years shows that, in the case of beef, the end of the third quarter of the year shows the lowest amount in storage in Pennsylvania, while the maximum occurs, in different years, in one or other of the remaining quarters. The highest amount in storage at any one quarterly period was for the last quarter of 1918. Since then, the stocks have been falling steadily until the end of the year 1919, when the amount on hand was about forty per cent greater than the amounts on the corresponding dates in 1914 and 1915.

In the case of pork also the tendency is toward a low stock at the end of the third quarter of the year; but during 1918 the amount accumulated to a maximum at that time and, after that, decreased to the end of the third quarter of 1919, after which a slight increase occurred. The amount of pork in stock at the end of 1919 was about forty per cent. in excess of the stocks at the end of the years 1914 and 1915.

In the case of fish, the maximum in storage is usually reached at the end of the fourth quarter, which is followed by a very rapid drop during the following quarter. The maximum for the period was reached at the end of the fourth quarter in 1917. The stocks on December 31, 1918, were about twenty per cent less, and, at the end of the past year less than half those at the same date in 1917.

In the case of poultry, the maximum stocks are found either at the end of the last quarter of the year or of the first quarter, and the lowest stocks at either the second or the third quarter. The highest stocks in Pennsylvania were found at the end of the first quarter of 1917, and at the corresponding period of 1919 the stock was only about fifty-five per cent as great. The amount of poultry in storage at the end of the past year was approximately normal for that season of the year and about double the amount held at the end of the preceding quarter.

In the case of shell eggs, the minimum stock appears, of course, at the end of the first quarter of the year and the largest amount at the end of the second quarter. June 30th of this last year found the greatest amount of the number of eggs in storage in the State since the same date of 1915. The stocks fell during this past year at about the same rate as they did in 1915, until the last quarter of the year, but the outward movement of eggs from storage was not so rapid during the past quarter as it was in the earlier year, the quantity of eggs in storage being about seventy per cent greater than on December 31, 1915.

In the case of butter, the maximum amount in storage occurred naturally during the third quarter of the year, the highest quantity is stock in Pennsylvania during the past six years being nearly eleven million pounds at the end of the third quarter, 1917. Butter moved

very rapidly from storage after that time but did not pass below normal until the end of the second quarter, 1918. The return to normal was not reached until sometime during the second quarter of 1919. The maximum in storage in the past year was less than three-fourths of the quantity in storage at the end of September 30, 1917. During the past quarter, butter has moved out much more rapidly than usual, the amount in stock on December 31, 1919, being slightly less than three million pounds as compared with the nomal of nearly four million pounds for that time of the year. So far as reports obtained at intervals so infrequently and on dates known in advance to the trade would serve to indicate, the past year has not witnessed any very extensive storage for profiteering purposes in the state of Pennsylvania. How far the variations represent transfers to other states, and how far local consumption, the reports do not indicate.

During the past year there have been detected 25 violations of the Cold Storage Act of 1913. Three of these were because of food being unfit to eat; 6 because of storage beyond the time limit fixed by law; 16 because of failure to observe the legal label requirements. When the great number of packages and the very large quantities of food examined are considered, the number of violations of law detected are very small.

#### Foods In General

The food examinations made during 1919 resulted in the detection of very few adulterations or misbrandings of staple foods prepared by manufacturers of recognized standing and engaged in interstate commerce. The major proportion of violations occurred in foods that were chiefly the subject of local production and sale.

A very considerable number of the violations of law consisted in the sale of food materials that had suffered decomposition or had otherwise become unfit for human consumption. Of the 1,007 cases terminated, 47 were for the sale of decomposed or contaminated food. Only 29 cases out of this total of 1,007 were brought because of the addition of chemical preservatives, and of these but 3 involved milk. Eleven cases were brought for the deceptive use of artifical color in the case of foods other than non-alcoholic drinks; about 62 such cases occurred among the 119 cases brought for violation of the Non-Alcoholic Drinks Act. The use of saccharin as a sweetener has not been generally found to occur in the staple foods.

The condition with respect to non-alcoholic drinks is, however, less satisfactory than in the years immediately preceding. Sixteen cases were brought for the use of this sweetening agent in the preparation of non-alcoholic drinks. Owing to the conditions of the time, it is not to be regarded as surprising that a very considerable number of beverages sold under names indicating freedom from alcohol were nevertheless found to contain that intoxicating constituent or ingredient. Twenty-eight of the non-alcoholic drinks sold under the name of "cider" were found to contain alcohol in considerable quantities, and a single beverage sold under another name was likewise found to contain alcohol in intoxicating quantities.

The Oleomargarine Law continues to be well observed. But 4 cases were teminated during the past year because of violations of this law. Of these, 2 were for sale without license, one for failure to stamp as the law requires, and one for coloring and selling for butter.

Twenty-five prosecutions were brought for sale of ice creams that were below standard in butter-fat.

In the case of milks, 685 prosecutions were terminated. Low butter-fat gave ground for prosecutions in 624 of these cases and low solids in 528 cases. Skimming was specifically alleged in 31 cases and watering in 78 cases. The 685 cases for violations of the Milk Act represent 4,197 samples examined or about one sample in 7. This proportion is not very different from that found in the other very recent years.

So far as the samples examined warrant judgement, the sale under other food names of war time substitutes is not a frequent occurrence.

In the short portion of the year which remained after the enactment of the Fresh Eggs Act, and after the time required for the drafting of regulations thereto and for notifying the trade, 73 samples were purchased under that name. Of these, 37, or practically sixty per cent, were found to be not fresh, but stale. Considering the small number of samples purchased, this proportion of cases, in which the eggs sold for fresh were not such, may possibly be an excess of the true average, but the proportion is so large as to indicate very distinctly the need for safeguarding the public against the sale of stale eggs under the name and the price of "fresh" eggs.

#### Botulinus Poisoning

Food substances are subject to decomposition through the activity of a great variety of lower organisms, especially molds and bacteria. Each of these organisms, capable of attacking a given food constituent, tends to produce from the latter a characteristic product or group of products. In some cases the effects are regarded as desirable in their influence in the food, as for instance that of the ripening ferment upon cheese or of the vinegar ferment upon cider. other cases, the effects are undesirable but probably not injurious to human health; but there are a few cases in which the organisms produce substances that are poisonous to the human being. One of these organisms is a bacterium known under the name of Botulinus. Its poisonous effects were first observed in the case of beans, but have since been found in quite a wide variety of food substances, even including corn silage fed to cattle. During the past year, a new occurrence in decomposition produced by this organism appeared in bottled ripe olives. A number of deaths were traced, in Detroit, Michigan, and Canton, Ohio, and more recently in New York and Montana, to the eating of ripe olives attacked by this organism. Since the effects were so poisonous and since ripe olives are a commodity now very widely distributed, it was judged by the Commissioner of Health and the Director of the Bureau of Foods in conference that drastic steps were warranted to protect the health and lives of the citizens of Pennsylvania. For that reason, on December 4th, last, an embargo was placed upon the sale and distribution of ripe olives in Pennsylvania and immediate investigation of the supplies found in stock was instituted with Dr. Charles H. LaWall as chemist and Dr. Randle C. Rosenberger as bacteriologist. investigators gave the following report of their investigation:

> "The investigation of the quality of the ripe olives as sold upon the Pennsylvania Market which we have been making under your direction during the past month, has been completed.

> "Two hundred and fifty-four samples have been examined representing seventy-one different brands and one hundred styles and sizes. Of these samples thirty-nine were of the 'Supreme' brand put up by the Curtis Olive Corporation of

Los Angeles, California.

"The investigation included a thorough, comprehensive series of chemical tests for adulterants and preservatives, including boric, benzoic and salicylic acids, formaldehyde and also for alkaloidal poisons. Nothing abnormal chemically was detected in any of the samples.

"Most of the samples were in cans and jars and all of these were in perfect condition as regards their preservation. There were no swelled buckles or leaky containers, although some of the packages were dirty and shopworn. None of the samples possessed any offensive, putrefactive or decomposition odor and in the majority of cases the flavor was good, some few being insipid. The consistency and color were both variable, probably due to different stages of ripness and to the treatment before being packed.

"From the chemical and bacteriological examinations and the results of animal inoculations it can be safely said that none of the olives submitted contained anything poisonous or harmful. The *bacillus botulinus*, (or other disease producing organism) was not found, nor were any of the samples found

to be adulterated in any manner whatever.

"If ripe olives were likely to cause botulism there was abundant opportunity among the laboratory workers for the disease to develop, for, supplementing the preliminary tests, they were eaten freely throughout the work with no untoward results.

"In our opinion, the chances of such poisoning are so extremely remote that the olive consuming public who favor the ripe variety may resume their diet with a feeling of perfect security.

"(Very truly yours, (Signed) "Charles H. LaWall, Dean,

Philadelphia College of Pharmacy.

(Signed) "Randle C. Rosenberger, Bacteriologist Philadelphia General Hospital."

Promptly upon receipt of this very satisfactory report of conditions in the State, the embargo was lifted and no occurrences of that kind of poisoning within the Commonwealth have since then come to the knowledge of the Bureau. We learn with interest that the olive packers have decided to substitute tin packages for the glass jars now used as containers, so as to make sterilization more perfect, and thus ensure against the development of *Botulinus*.

## Acknowledgments

In concluding, allow me to express my deep indebtedness to Governor Sproul and to yourself for unfailing support given to me in the performance of my duties; to the Attorney General and especially to Deputy Attorney General William M. Hargest for frequent counsel on the legal aspects of the Bureau's work, and finally, my most hearty appreciation of the loyalty and interest continuously shown by the agents, chemists and the clerical force belonging to the Bureau.

Very respectfully,

JAMES FOUST,

Director of the Bureau of Foods.

# APPENDIX



## SUMMARY OF ARTICLES ANALYZED BY CHEMISTS OF THIS BUREAU DURING THE YEAR 1919.

Artiele	Number Analyzed.
COLD STORAGE PRODUCTS: Beef Kidneys, Pork, Pork Livers, Pork Snouts, Pork Trimmings,	2 4 1 1 10
DAIRY PRODUCTS: Butter, Cheese, Cream Milk, Condensed, Milk, Evaporated, Milk, Skimmed, Milk,	197 18 708 6 1 4 3,483
EGGS: Eggs, Baking. Eggs, Craeked, Eggs, Fresh, Eggs, in shell,	1 1 73 34 109
ICE CREAMS: Cherry, Choeolate, Maple Nut, Pineapple, Strawberry, Vauilla,	$ \begin{array}{c} 1\\ 13\\ 3\\ 1\\ 11\\ 176\\ \hline 205 \end{array} $
LARD,	10
NON-ALCOHOLIC DRINKS: Apple-Sip, Beverage, cereal, Beverage, green label, Beverage, imitation Rock & Rye, Beverage, imitation sherry. Bireh Beer, Birehola, Bolo, Bruin, Cherry Braeer, Cherry Smash, Cider, Cider, canned, Cider, Cherry, Cider, Corange, Curo, Drinket, Family, Ade, Ginger Ale, Grape Areola,	1 1 2 1 2 1 1 3 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

$\Lambda$ rticle	Number Analyzed.
NON-ALCOHOLIC DRINKS—Continued: Grapeine, Gross Vater, Jay Bee, Jo-La, Jolligood, Juice, Grape, Just Rite, Kovae, Kovar, Lemon Sour, Lime Juice, Mazola, Mexicola Arcola, Nu-Era, O-Apple-O, Orangeade, Orange Whistle, Pablo, Pop, Cherry, Pop, Grape, Pop, Grape, Pop, Raspberry, Queeno, Red Grape, Root Beer, Royal Punch, Sarsaparilla, Imitation, Ship-A-Hoy, Soda, Soda, Cherry, Soda, Grape,	1 1 2 2 2 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1
Soda, Lemon, Soda, Orange, Soda, Pear, Soda, Raspberry, Soda, Red, Soda, Sarsaparilla, Soda, Smile, Soda, Strawberry, Soda, Vanilla, Summer Drink, Tonica, Vigorola, Webeo, Wiz, Whistle,	122152231215211112 152213121152111112
OLEOMARGARINE, =	194 5 5
SAUSAGE:  Bologna, Canned, Frankfurters, Fresh Pork, Smoked, Vienna, Wiener.	1 2 2 35 4 1 4 4

Article	Number Aualyzed.
VINEGAR: Cider, Distilled, Raspberry, White, distilled,	12 2 2 1 17
FOOD PRODUCTS.	
DEAD CAKES AND DIDDINGS.	
BREAD, CAKES AND PUDDINGS: Bread, Wheat, Bread, Bostou Brown, Biscuits, Biscuits, Camco, Biscuits, Milk, Cake, (no name), Cake, Coccanut, Cake, Coffee, Cake, Jelly, Cake, Marble, Cake, Orange Sponge, Cakes, cut, Cakes, drop, Cakes, goose ueck, Custard, Peach, Ginger Snaps, Jiffy Jell, Jello-O, Jell, Strawberry, Jelley, Powder, Marmalade, Orange, Pat-a-Cake, Pretzels, Puddine, Soda Crackers, Tapioca,	1121141821111111222
CANNED FRUITS AND VEGETABLES: Asparagus, Beans, Black eyed, Beans, canned, Beaus, lima, Cherries, Corn, Mincemeat, Mushrooms, Peaches, canued, Peaches, dried, Peas, cauned, Potatoes-Tomatoes, Pumpkin, canned, Spinach, Sweet Potatocs, canned, Tomatoes, canued, Tomatoes, fresh,	1 1 2 1 50 3 5 1 2 2 8 1 1 1 19 1
CONFECTIONERY: Candy, (no name), Candy, Maple, Candy, Nonpariel, Caudy, Wintergreen, Candy, Marshmallow, Chocolate Eggs,	3 1 1 1 4 1

Article	Number Analyzed.
FOOD PRODUCTS—Continued	
CONFECTIONERY—Continued. Cocoanut Strips, Easter Eggs, Jelly Beans, Jelly Eggs, Lime and Cherry Drops, Marshmallow, chocolate, Marshmallow, eggs,	1 1 1 1 1 1 1
FLAVORING EXTRACTS: Extracts, Lemon, Extract, Orange, Extract, Pineapple. Extract, Vanilla,	2 1 1 1
FLOUR: Barley, Buckwheat, Corn, Graham, Pancake, Potato, Wheat,	15 5 3 22 2 2 1 6
Butter, Apple, Jam, Corn Syrup, Jam, Pure Fruit, Jam, Strawberry and Apple, Jelly, Apple, Jelly, Apple and Grape. Jelly, Corn Syrup and Apple, Jelly, Grape, Jelly, Raspberry and Apple, Orange Marmalade. Preserves, (no name). Preserves, Raspberry, Raspberry and Apple Compound,	4 1 1 1 1 1 1 1 4 1 1 1 1
HONEY AND SYRUPS:  Honey, Molasses, Syrup, Syrup, Cane and Corn, Syrup, Fruit Punch. Syrup, Maple, Syrup, Tame Cherry,	20 5 7 3 1 1 4 4 1
CATSUPS, OILS, PICKLES, RELISHES, ETC.:  Catsup, Catsup with Tabasco, Chili Con Carne, Gherkins, Sweet. Herse Radish, Mustard, Oil, Douglass, Oil, Olive, Olive Naise,	95 1 1 1 3 2 1 29 2

Artiele	Number Analyzed.
FOOD PRODUCTSContinued	
CATSUPS, OILS, PICKLES, RELISHES, ETC.—Continued. Pickles, spiced,	3
Pickles sweet mixed	8
Ralish India	1
Relish, Table, Sauce, Worchestershire,	$\frac{1}{1}$
Sauce, Wolchestersman, Programme and Program	149
FISH, CANNED, DRIED AND FRESH:	
Carp, Clams,	1. 1
Codfish Italian,	
Codfish Shredded,	. 1
Crab Meat, canned,	$\frac{1}{1}$
Fish, Dried, Fish, Flaked,	
Fish Halibut	. 1
Fish, Herring,	$\begin{array}{ccc} \cdot & 1 \\ \cdot & 1 \end{array}$
Fish, Herring Bloater, Fish, Whiting,	
Lobster, eanned,	. 1
Mackerel Roe	. 1
Oysters, fresh, Salmon,	. 1
Sardines,	. 8 .
Shrimps,	. 6
	32
MEATS, CANNED AND FRESH:	
Baeon,	. 1
Corned Beef,	
Corned Beef Hash,	
Ham, boiled,	. 3
Ham, deviled,	. 1 . 1
Ham, minced. Pigs Feet,	
Pork Kidney.	. 1
Potted Meat,	. $\frac{2}{50}$
Steak, Hamburg,	
STOOK SOLICINITY	
Steak, Salisbury,	
	88
MISCELLANEOUS:	88
MISCELLANEOUS: Almonds, Aigo,	. 1 . 4
MISCELLANEOUS: Almonds, Aigo, Allspice,	. 1 . 4 . 1
MISCELLANEOUS: Almonds, Aigo, Allspice, Butter, Peanut,	. 1 . 4 . 1 . 3
MISCELLANEOUS: Almonds, Aige, Allspice, Butter, Peanut, Butter, Olive.	. 1 . 4 . 1 . 3 . 1
MISCELLANEOUS: Almonds, Aigo, Allspice, Butter, Peanut, Butter, Olive, Cantaloupe, Cinnamon,	. 1 . 4 . 1 . 3 . 1
MISCELLANEOUS: Almonds, Aigo, Allspice, Butter, Peanut, Butter, Olive. Cantaloupe, Cinnamon, Cloves,	88 . 1 . 4 . 1 . 3 . 1 . 1
MISCELLANEOUS: Almonds, Aigo, Allspiee, Butter, Peanut, Butter, Olive. Cantaloupe, Cinnamon, Cloves, Chestnnts,	88 . 1 . 4 . 1 . 3 . 1 . 2 . 2 . 2 . 1
MISCELLANEOUS: Almonds, Aigo, Algo, Allspice, Butter, Peanut, Butter, Olive. Cantaloupe, Cinnamon, Cloves, Chestnnts, Chocolate, prepared, Clam Chowder,	88 . 1 . 4 . 1 . 3 . 1 . 1 . 2 . 1 . 1 . 1
MISCELLANEOUS: Almonds, Aigo, Allspice, Butter, Peanut, Butter, Olive. Cantaloupe, Cinnamon, Cloves, Chestnuts, Chocolate, prepared, Clam Chowder, Cocoa,	88 . 1 . 4 . 1 . 3 . 1 . 2 . 2 . 1 . 1 . 7
MISCELLANEOUS: Almonds, Aigo, Allspice, Butter, Peanut, Butter, Olive. Cantaloupe, Cinnamon, Cloves, Chestnnts, Choeolate, prepared, Clam Chowder, Cocoa, Cocoa, Cocoanut,	88 . 1 . 4 . 1 . 3 . 1 . 2 . 1 . 1 . 2 . 1 . 1 . 2 . 2 . 1 . 1 . 2 . 2 . 2 . 3 . 3 . 3 . 1 . 3 . 4 . 1 . 3 . 1 . 3 . 3 . 1 . 3 . 3 . 1 . 3 . 3 . 1 . 3 . 3 . 3 . 3 . 3 . 3 . 3 . 3 . 3 . 3
MISCELLANEOUS: Almonds, Aigo, Allspice, Butter, Peanut, Butter, Olive. Cantaloupe, Cinnamon, Cloves, Chestnuts, Chocolate, prepared, Clam Chowder, Cocoa,	88
MISCELLANEOUS: Almonds, Aigo, Allspice, Butter, Peanut, Butter, Olive. Cantaloupe, Cinnamon, Cloves, Chestnuts, Chocolate, prepared, Clam Chowder, Cocoa, Cocoanut, Coffee, beverage, Coffee, pulverized.	88  .
MISCELLANEOUS: Almonds, Aigo, Allspiee, Butter, Peanut, Butter, Olive. Cantaloupe, Cinnamon, Cloves, Chestnnts, Chocolate, prepared, Clam Chowder, Cocoa, Cocoan, Coffee, beverage, Coffee, ground, Coffee, pulverized. Cornstareh,	88
MISCELLANEOUS: Almonds, Aigo, Allspiee, Butter, Peanut, Butter, Olive. Cantaloupe, Cinnamon, Cloves, Chestnnts, Chocolate, prepared, Clam Chowder, Cocoa, Cocoanut, Coffee, beverage, Coffee, prulverized. Cornstareh, Cranberries, evaporated, Dates,	88
MISCELLANEOUS: Almonds, Aigo, Allspiee, Butter, Peanut, Butter, Olive. Cantaloupe, Cinnamon, Cloves, Chestnits, Chocolate, prepared, Clam Chowder, Cocoa, Cocoanut, Coffee, beverage, Coffee, ground. Coffee, pulverized. Cornstarch, Cranberries, evaporated,	88

Article	Number Analyzed.
FOOD PRODUCTS—Continued.	
MISCELLANEOUS—Continued. Egg Shade, Egg Vermacilli, Essence of Coffee, Fruited Wheat, Health Bran, Hominy Grits, Jaffe, Kream Krisps, Marcroni, Newto, Oatmeal, Olive Spread, Oystero, Paprika, Pepper, Black, Pepper, White, Pie Killing (Lemon flavor), Powder, Baking, Powder, Bc Coream, Postum Cereal, Powdered Egg, Prepared Prunes, Quaker Oats, Radishes, Rolled Oats, Rice, Rice, Milk, Rice, Puffed, Raisins, Salt, Salt, Salt, onion Sandwichola, Savaegg, Spaghetti, Sugar, Sugar Brown, Sugar Granulated, Sugar, Maple, Tomato, Paste,	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
_	122
Total Food Products,	653
RECAPITULATION.	
Butter, Cheese Milk, Cold Storage Products, Eggs, Ice Cream, Lard, Non-Alcoholic Drinks, Oleomargarine, Sausage, Vinegar, Food Products,	197 18 4,197 10 109 205 10 194 5 49 17 653

## NUMBER OF PROSECUTIONS ORDERED DURING THE YEAR, 1919. ARRANGED BY MONTHS AND THE VARIOUS ACTS.

ARRANGED BY MONTHS A	ND THE VARIOUS ACTS.
Number Ordered During Each Month:         January,       32         February,       5         March,       78         April,       137         May,       125         June,       171         July,       100         August,       121         September,       49         October,       197         November,       87         December,       85	Number Ordered Under Each Act:         Lard,       1         Cheese,       1         Sausage,       2         Vinegar,       2         Olcomargarine,       3         Fruit Syrup,       3         Fresh Meat,       7         Cold Storage,       13         Ice Cream,       27         Egg,       1         Fresh Egg,       92         N o n - Alcoholic       0         Drinks,       137         General Food,       153         Cream and Milk,       745
Total, 1,187	Total, 1,187
THE FOLLOWING TABLE GIVES A BY CHEMISTS AND FOUND TO F LAWS, AND THE NUMBER OF S WHICH PROSECUTIONS WERE BA	AMPLES OF EACH PRODUCT ON
COLD STORAGE ACT. 1913:  Cold Storage Calves, stored beyond Cold Storage Chickens, not labeled of Cold Storage Eggs, not labeled or not Cold Storage Eggs, canned, unfit of Cold Storage Fish, not labeled or material Cold Storage Pig Tails, stored beyond Cold Storage Pork, stored beyond Cold Storage Pork Livers, stored be Cold Storage Smelts, not labeled or not cold Storage Smelts, not cold Stor	or marked cold storage, 1 nd the time limit,
EGG ACT, 1909: Eggs, unfit for food, Eggs, unfit for food, to be used in h	pakery, 2
EDEST DOG LOW 1010.	<u>12</u>
FRESH EGG ACT, 1919: Eggs, Stale, sold for fresh,	37
	37
GENERAL FOOD ACT, 1909: Agg-e-la Powder, misbranded, Boric Acid, sold as Mrs. Price's Ca Butter, containing an excessive ame Cakes, containing coal tar dye, Cakes, Marshmallow Roll, containing Cakes, Currant, containing coal tar Cheese, low in butter-fat, Cherries, contained sulphur dioxide Chickens, unfit for food, Eggs in Shell, unfit for food, Eggs Noodles, misbranded, adulterat Egg Noodles, unfit for food, Fish, Flaked, unfit for food, Fish, Unfit for food, Fish, Cod, containing borates, Fish, Cod Shredded, decomposed, un Flour, Buckwheat, containing wheat Meat, Decomposed, unfit for food, Meat, Ham, unfit for food,	1 mning Compound, 2 ount of water, 11 mg coal tar dye, 1 r dye, 2 1 9 1 ted, 1

Meat, Boiled Ham, unfit for food, Meat, Hamburg Steak, containing sulphites, Meat, Hogs' Heads, decomposed, unfit for food, Meat, Pigs' Feet, and Kidneys, unfit for food, Meat, Pigs' Feet, decomposed, unfit for food, Meat, Pork Kidneys' decomposed, unfit for food, Meat, Sausage, unfit for food, Meat, Sausage Bologua, containing added cereals, Meat, Sausage Frankfurters, containing excessive amount of water.  Meat, Steak Sirloin, decomposed, Oil, Olive, adulterated. Peaches, Canned, unfit for food, Peaches, Dried, containing undeclared sulphur dioxide, Peas, Canned, unfit for food, Pickles, Dill, decomposed, unfit for food, Raisins, containing undeclared sulphur dioxide, Raisins, decomposed, unfit for food, Satoin, a saccharin solution sold as a substitute for sugar, Sauer Kraut, unfit for food, Turkey, decomposed, unfit for food,	1 3 1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1
Zurie, decomposed,	81
FRUIT SYRUP ACT, 1905:	1
Syrup, Orange Julep, misbranded,	1
ICE CREAM ACT, 1909:	
Ice Cream, Chocolate, low in butter-fat,	$\frac{2}{2}$
Ice Cream, Maple Walnut, contained no nuts, and low in	$\frac{1}{20}$
Ice Cream, Vanilla, low in butter-fat,	$\frac{20}{25}$
LARD ACT, 1909:	
Lard, Imitation, sold as pure lard,	1
	1
MEAT ACT, 1905: Meat, Hamburg Steak, preserved with sulphites,	2
	2
MILK ACT, 1911:	75
Cream, low in butter-fat,	1
Milk, adulterated,	$\frac{1}{16}$
Milk, low in butter-fat, partially skimmed,	1
Milk, low in butter-fat, skimmed,	$\begin{array}{c} 6 \\ 482 \end{array}$
Milk, low in butter-fat and solids, partially skimmed,	$\frac{3}{21}$
Milk, low in butter-fat and solids, skimmed,	19
Milk, low in solids,	1
Milk, watered,	
	685
MHLK ACT, 1901:	
Milk, preserved with formaldehyde,	3
	3

NON ALCOHOLIC DRINK ACT 1909.	
Ale, Ginger, unfit for food, Cider, contained salicylic acid and alcohol, Cider, contained salicylic acid and alcohol, Cider, contained alcohol and intoxicating, Cider, Apricot, contained alcohol and intoxicating, Cider, Apricot, artifically flavored and intoxicating, Cider, Cherry, artifically colored and flavored, Cider, Cherry, artifically colored and flavored, intoxicating, Cider, Cherry, contained alcohol and intoxicating, Cider, Champagne, contained alcohol and intoxicating, Cider, Grape, artifically colored and flavored, Cider, Grape, contained alcohol and intoxicating, Cider, Orange, contained alcohol and intoxicating, Cider, Orange, contained alcohol and intoxicating, Cider, Peach, artifically colored and flavored, Cherry, Red Tame, artifically colored and flavored, Cherry Smash, artifically colored and flavored, Cherry Smash, artifically colored and flavored, Cherry, Wild, misbranded, Grape Juice, containing sulphur dioxide, Nu Kola, containing saccharin, Orangeade, artifically colored and flavored, Pop, Grape, misbranded, Pop, Grape, artifically colored and flavored, Pop, Strawberry, artifically colored and flavored, Pop, Strawberry, artifically colored and flavored, Pop, Strawberry, artifically colored and flavored, Soda, Cherry, artifically colored and flavored, Soda, Raspberry, artifically colored and flavored, Soda, Pine Apple, sweetened with saccharin, Soda, Banana, sweetened with saccharin, Soda, Strawberry, artificially colored and flavored, Soda, Strawberry, artificially colored and flavored, Soda, Strawberry, artificially colored and flavored, Soda, Strawberry, artifi	127112411111121111111111111111111111111
Wishniak, misbranded, artificially colored and flavored,  OLEOMARGARINE ACT, 1901, Oleomargarine, colored and sold for butter, Oleomargarine, not stamped as required by law, Oleomargarine, sold without a license,	119 1 1 2 2
SAUSAGE ACT, 1911, Sausage, Pork, containing added water and cereals,	1
VINEGAR ACT, 1901, Vinegar, Cider, consisting of distilled vinegar and artificially colored, Vinegar, Distilled, sold for cider vinegar, Vinegar, Distilled, colored with caramel and molasses vinegar,	
MILK CASES, Milk Cases, terminated but not prosecuted because of insufficient evidence,	7
Total number of cases terminated,	1,007

RECAPITULATION	
CASES TERMINATED:	
Cold Storage,	25
$_{ m Eggs}$ ,	49
Food,	81
Fruit Syrup,	1
Ice Cream,	25
Lard,	1
Meat,	2
M1lk,	695
Non-Alcoholic Drinks,	119
Oleomargarine,	4
Sausage,	1
Vinegar,	4
Total Terminated,	1,007